

IN THE CLAIMS

Please amend Claim 25, and add Claims 39-59, as follows:

25. (Twice Amended) A lock, comprising:

a shell containing a hollow recess defining a longitudinal axis and an interior cylindrical surface;

a cylinder plug rotatable around said longitudinal axis while resident within said hollow recess;

a bar interposed between said shell and said cylinder plug to reciprocate generally along a radial plane between a first position engaging both said shell and said plug while obstructing rotation of said cylinder plug within said recess, and a second position accommodating said rotation, said cylinder plug comprising:

a first base and a second base separated by an axial length of said cylinder plug from said first base, said second base bearing means for supporting a cam; and

an electrical operator borne by said cylinder plug and rotatable with said plug, said electrical operator being electrically operable to respond to a control signal by moving between a first orientation and a second and different orientation providing obstruction of said bar.

--39. The lock of claim 25, further comprising:

a basic circuit generating said control signal in response to a comparison between a code set within said logic circuit and a date signal applied to said logic circuit;

a conductor provided by said plug, conveying said data signal to said logic circuit; and

said electrical operator moving between said second orientation and said first orientation in response to said control signal.

--40. The lock of claim 39, with said conductor comprising an electrical conductor.

--41. The lock of claim 25, further comprising:

a logic circuit borne by said plug, generating said control signal in response to a comparison between a code set within said logic circuit and a data signal applied to said logic circuit;

a conductor borne by said plug, conveying said data signal to said logic circuit; and  
said electrical operator moving between said second orientation and said first orientation in response to said control signal.

--42. The lock of claim 41, with said conductor comprising an electrical conductor.

--43. A lock, comprising:

a cylinder containing a hollow interior recess defining a longitudinal axis, and bearing a slot within said recess; and

a plug rotatable from a rest orientation around said longitudinal axis while resident within said hollow recess relative to said cylinder; and

an elongate member positioned between said cylinder and plug while extending into said slot, and providing simultaneous engagement of said cylinder and said plug while said plug remains in said rest orientation;

said plug comprising:

a first base bearing an orifice spaced-apart from and separated by a mass of said plug from said keyway;

a second base separated by an axial length of said plug from said first base, said second base disposed to support a cam, said mass being penetrated by a radially oriented aperture;

an exterior surface extending between said first base and said second base; a conductor having a terminal exposed to an exterior of said first base through said orifice;

an electronic logic circuit comprising a memory storing a code, said circuit being borne by said plug and coupled to receive data signals via said conductor, said circuit generating control signals in dependence upon a comparison between said code and information borne by said data signal; and

an electrical operator mounted within said aperture, said operator having a movable member travelling in dependence upon said control signals between a first position relative to said exterior surface maintaining said simultaneous engagement and a second and different position relative to said exterior surface accommodating movement between said plug and said cylinder.

--44. The lock of claim 43, further comprising:

    said elongate member comprising a sidebar positioned between said first base and said second base to reciprocate between a first location while providing said simultaneous engagement, and a second location releasing said plug for rotation relative to said cylinder; and

    said movable member being oriented within said plug to move relative to said plug to accommodate reciprocation of said sidebar relative to said plug and rotation of said plug from said rest orientation relative to the cylinder when a key while inserted into said plug generates said data signals representing information having a selected said comparison with said code, and obstructing said reciprocation absent said selected comparison.

--45. The lock of claim 43, further comprising:

    said elongate member comprising an arm arcuately engaging said cylinder and a detent extending from said arm and through said slot; and

    said movable member being oriented within said plug to move relative to said plug to accommodate passage of said detent relative to said movable member during rotation of said plug from said rest orientation relative to the cylinder when a key while inserted into said plug generates said data signals representing information having a selected said correspondence with said code, and obstructing said rotation of said plug from said rest orientation by engaging said detent absent said selected correspondence.

--46. A lock, comprising:

a shell containing a hollow recess defining a longitudinal axis and an interior cylindrical surface;

a cylinder plug rotatable around said longitudinal axis while resident within said hollow recess;

a bar borne by said plug and rotatable with said plug relative to said shell, said bar being interposed between said shell and said cylinder plug to reciprocate generally along a radial plane between a first position engaging both said shell and said cylinder plug while obstructing rotation of said cylinder plug within said recess, and a second position accommodating said rotation, said cylinder plug comprising:

a first base and a second base separated by an axial length of said plug from said first base, said second base bearing means for supporting a cam; and

an electrical operator being electrically operable to respond to an electrical control signal by moving obstructing movement of said bar between said first position and said second position in response to a first state of said control signal and accommodating said movement of said bar in response to a second and different state of said control signal.

--47. The lock of claim 46, further comprised of said operator directly obstructing movement of said bar between said first position and said second position absent said control signal.

--48. The lock of claim 46, further comprised of:

a logic circuit borne by said cylinder plug generating said control signal in response

to a comparison between a code set within said logic circuit and a data signal applied to said logic circuit; and

    said electrical operator moving to accommodate said movement by said bar in response to said control signal.

--49. The lock of claim 46, further comprised of a locking mechanism borne by said cylinder plug, said cylinder plug being perforated by an aperture admitting reciprocal travel of a key relative to said locking mechanism, and said locking mechanism obstructing movement of said cylinder plug relative to said shell absent the key exhibiting a selected relation with said locking mechanism.

--50. The lock of claim 46, further comprised of a plurality of electrical conductors borne by said lock to engage a circuit in a key inserted into said plug.

--51. The lock of claim 46, further comprised of a power source energizing said electric operator to move during said second and different state of said control signal, positioned to rotate with said plug relative to said shell.

--52. The lock of claim 51, further comprised of said plug containing a keyway, and said power source being mounted on a key insertable into said keyway.

--53. The lock of claim 46, further comprised of a network of plugs including said cylinder plug, and a switching device controlling operation of said network and said state of said control signal.

--54. The lock of claim 46, further comprised of:

    said plug containing a keyway;  
    a memory borne by said cylinder plug and storing a code; and  
    a logic circuit comprising a memory storing a code, said circuit being borne by said plug and generating said control signal in dependence upon correspondence between said code and data borne by a key insertable within said keyway.

--55. The lock of claim 53, further comprised of:

    said plug containing a keyway;  
    a memory borne by said cylinder plug and storing a code; and  
    a logic circuit comprising a memory storing a code, said circuit being borne by said plug and generating said control signal in dependence upon said switching device and correspondence between said code and data borne by a key insertable within said keyway.

--56. A lock, comprising:

    a shell containing a hollow recess defining a longitudinal axis and an interior cylindrical surface;

a plug rotatable around said longitudinal axis while resident within said hollow recess;

an elongate member interposed between said shell and said plug to travel generally along a radial direction between a first position engaging both said shell and said plug while obstructing rotation of said plug within said recess, and a second position accommodating said rotation;

said plug comprising:

a first base perforated by an aperture, and a second base separated by an axial length of said plug from said first base, said second base bearing means for supporting a cam;

a logic circuit borne by said plug and rotatable with said plug, conveying said data signal between said aperture to said logic circuit; and

An electrical operator responding to said control signals by moving between a first orientation obstructing said travel and relative operable movement between said shell and said plug while said electrical operator is contained wholly within said plug, and a second and different orientation accommodating said travel and said relative operable movement between said shell and said plug.

--57. The lock of claim 16, further comprising said distal member bearing a mass engaging said detent and blocking said rotation while said distal member is in said first position, and a groove through said mass accommodating relative passage between said distal member relative to said

detent while said distal member is in said second position.

--58. The lock of claim 16, further comprising said distal member bearing a mass exhibiting a first height accommodating relative passage between said distal member relative to said detent while said distal member is in said second position, and a second and greater height engaging and blocking said rotation while said distal member is in said first position.

--59. The lock of claim 16, further comprising said distal member bearing a mass having a periphery engaging said detent and blocking said rotation while said distal member is in said first position, and a central variation in said mass relative to said periphery accommodating relative passage between said distal member and said detent while said distal member is in said second position.